

## **Log CHARA/VEGA 2020-06-10**

Observers: Fred (VEGA), Nicolas (Report and CoffeeS)  
Olli (Mt Wilson)

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UTC time:

03:00 Starting Observing Night

**W1 POP2 B2 W2 POP5 B3 (ref)**

**V67 (O. Creevey) – HD89221**

**OPD offset: +150 $\mu$ m (left)**

**Target HD89221, PI: 'Creevey', Prog: 'V67'.**

**Cal1 = HD89904**

**Cal2 = HD95934**

**LABAO = HD82741; check = HD85795**

We have the full AO system set up today (contrary to yesterday).

*Olli, 03:05*

*I have some issues with W1 WFS, trying to fix them now*

*Olli, 04:11*

*Ok locked now. I'm experimenting a bit here. Could you see how it looks like to you?*

*I'm running E1 and W1 with labao servo and zauto. W2 on flat because the blue beacon seems to leak to the wfs*

04:19 Alignment of VEGA on the check. The pupils and the number of photons are much better than yesterday.

04:23 Looking for CLIMB fringes. NIRO crash.

04:41 Fringes with CLIMB. Beam 2 still weak in IR.

Seeing of 5-6cm like yesterday. It would be interesting to compare with previous night (same program and stars).

04:52 Still aligning AOs... issues...

### **HD89904.2020.06.10.04.57**

W1 -1040

CLIMB\_B2=4.60

20 blocs

Seeing around 6 cm like yesterday but nice CLIMB and VEGA fringes. This dataset should be compared to the one of yesterday: same hour angle, rather same seeing, but with AOs.

### **HD89221.2019.06.10.05.12**

W1 -1060

30 blocs

The TELAO says 4 cm (probably underestimated)

CLIMB and VEGA fringes are nice.

Around blocs 15-17, 27-28, we lost CLIMB tracking.

Fringes difficult to see on CLIMB and VEGA. Bad conditions again?

### **HD89904.2020.06.10.05.32**

W1 -960

CLIMB\_B2=4.56

20 blocs

“Tracking pas génial génial”. Fringes are still nice, but a bit of lower quality than for the first cal 1.

### **HD89221.2019.06.10.05.45**

W1 -1040

30 blocs

Weak fringes on CLIMB.

### **HD95934.2020.06.10.06.10**

W1 -1040

20 blocs

### **D\_CM720.2020.06.10.06.24**

**E1 POP1 B1 W1 POP2 B2 (ref)**  
**V38 (A. Salsi) – HD160762**

**OPD offset: +150 $\mu$ m (left)**

Target = HD 160762  
Cal 1 = HD 167965  
Cal 2 = HD 162132

Target is used for check.  
06:50 no flux in IR on W1. Issues. Fixed by Olli. Better for VEGA.

**HD162132.2020.06.10.07.24**

E1 2000

CLIMB\_B1=6.14

CLIMB\_B2=4.65

30 blocs

Extremely weak for CLIMB and VEGA. At the limit in term of magnitude for CLIMB (K=6.2) and quite difficult for VEGA (V=6.5). At the end of 30 blocs VEGA fringes are not clear. Also, data to be compared with the previous night (without AO). Seeing of 9 cm from TELAO

Check of VEGA alignment.

Fringes on CLIMB are very weak on such bright star ! Olli is checking NIRO alignment.

*Olli, 09:52*

*I wonder if the Niro alignment suffers from having the active labao on*

**HD160762.2020.06.10.07.52**

E1 2140

CLIMB\_B1=6.17

20 blocs

07:57 Issues again with NIRO alignment...

**HD167965.2020.06.10.08.31**

E1 2260

Contrarily to the first reference stars, CLIMB fringes are well tracked and VEGA fringes are clear. Seeing of 9 cm.

Bloc 5-9, CLIMB fringes lost!

35 blocs

8.46: Swing of the scopes around

**HD160762.2020.06.10.09.04**

E1 2090

CLIMB\_B1=6.23

20 blocs

**HD167965.2020.06.10.09.18**

E1 2300

30 blocs

**HD160762.2020.06.10.09.37**

E1 1960

CLIMB\_B1=6.25

CLIMB waterfall is nice. VEGA fringes clear.

8-11 dead.

25 blocs

**HD167965.2020.06.10.09.55**

E1 2110

15 blocs

Tracking CLIMB a bit difficult. This is a bit strange. The water is really bad despite AOs.... NIRO alignment needed probably.

**D\_CMR720.2020.06.10.10.11**

**W1 POP2 B2 W2 POP5 B3 (ref)**  
**V70 (R. Klement) – HD193237**

**OPD offset: +150 $\mu$ m (left)**

2T with VEGA on  
W1 POP2 on beam 2  
W2 POP5 on beam 2 (ref)  
Target= HD193237  
Cal 1= HD191243  
Cal 2= HD197392  
Target=check

Observations are done at 656nm.

When doing the check, we realize that we were completely  
misaligned on W1...

10:24 OPLE crash

**HD197392.2020.06.10.10.45**

E1 -1030

CLIMB\_B2=4.68

Nice CLIMB and VEGA fringes

10:55 Swing around

**HD193237.2020.06.10.11.14**

E1 -980

Nice CLIMB and VEGA fringes

**HD191243.2020.06.10.11.30**

E1 -1000

10:55 Swing around

**HD193237.2020.06.10.11.44**

E1 -1020

Nice CLIMB and VEGA fringes

**HD191243.2020.06.10.11.58**

E1 -1020

Nice CLIMB and VEGA fringes

**D\_CM656.2020.06.10.12.08**